



The Eclectic Angler



Many men go fishing all of their lives without knowing that it is not fish they are after.

~Henry David Thoreau

The December, 2011 Newsletter

A message from Michael:

2012 marks *The Eclectic Angler's* third year in business and by all accounts it was a successful year. Our workshops have introduced over 100 anglers to reelsmithing all over the country - that's over two times more than last year. This year we produced special kits for our workshops to keep them fresh and exciting and we'll be doing more of that in 2012. And, the *Reelsmithing Forum* grew over 50% this year too, interest in hand-crafting reels is strong and growing.

We introduced some great new products this year and updated all of our reel kits with improved designs, features, and packaging. We continue to receive high praise from customers on the clarity of our instructions and quality of the kits. In August we launched a new publishing division, *Reel Lines Press*, (in conjunction with *The Whitefish Press*) to bring reel building and other select angling-related books to market. This year RLP published David Triezenberg's *Round and Raised Pillar Reel Plans* and John Bett's book, *Reels & Making Them*. We have several new book projects lined up in 2012.

We are especially proud of our "Giving Back" program. This year we donated hand-crafted reels, reel kits, flies, books, and other items to help raise funds for Project Healing Waters, Casting for Recovery, and many Trout Unlimited Chapters across the country. One highlight was a Reelsmithing Workshop with the NH Council. We were able to donate \$500 to the NH Council and Basil Woods Chapter's *Trout in the Classroom* project. Finally, we've committed to donating 10 hand-crafted fly reels a year for 10 years (100 reels!) to the Catskill Fly Fishing Center and Museum's *Fly Fishing Heritage Craft Center* project.

I celebrate Christmas and wish you and yours a very Merry Christmas.

Peace,

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December Specials

This month we want to thank all of our great customers with our best deal of the year! All [Reel Kits](#), [Reelsmithing Materials](#), [Tools & Supplies](#), [Accessories](#), and our hand-crafted [Reels](#) are **20% off**. And, every [Reel Kit](#) will include a **free** [Suede Reel Case](#)!

Upcoming Workshops

- We are working with the folks at Rose River Farm in Virginia to plan a very special *Reelsmithing Workshop and Fly Fishing Weekend* at the farm. This will take place sometime in January or February, perfect months for fishing at the farm! Contact Rose River (info@rosriverfarm.com) for more information and registration.
 - We are also putting together another *Reelsmithing Workshop* in conjunction with the New Hampshire Council of Trout Unlimited following the great success we had last year. Our workshop raised \$500 for the Council's Trout in the Classroom project. We are planning to make an even larger donation this year. Watch an upcoming Newsletter for dates and more information.
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Tips

In our tip this month you will learn how to veneer spool plates to create a unique and distinctive look to your reels. I'd like to thank bamboo rod maker and fellow reelsmith Steve Rehm for the idea of veneering the brass plates. I used to make the spool side plates out of thin plywood and apply the veneer to that, but using the brass plate is much easier, won't warp, and looks great front and back.

Tip #11 – Wood Veneered Spool Plates

Wood has been used in reel making for centuries, it is likely that the first fishing reels were mostly wood. Wood colors and grains nicely compliment brass, another early reel making material. The combination of brass and wood is timeless and beautiful.

Unfortunately, wood and water are not good companions so precautions are necessary to keep the wood from warping, checking, and splitting. Some woods, like tight-grained mahogany, are more suited to reel construction and was used in the beautiful Nottingham reels developed in the UK in the nineteenth century. In this tip, we'll show you how to veneer side plates to create unique "reel art". See **Figure 1** for the before and after photos of our Brass Silent Check Reel veneered in this tip.

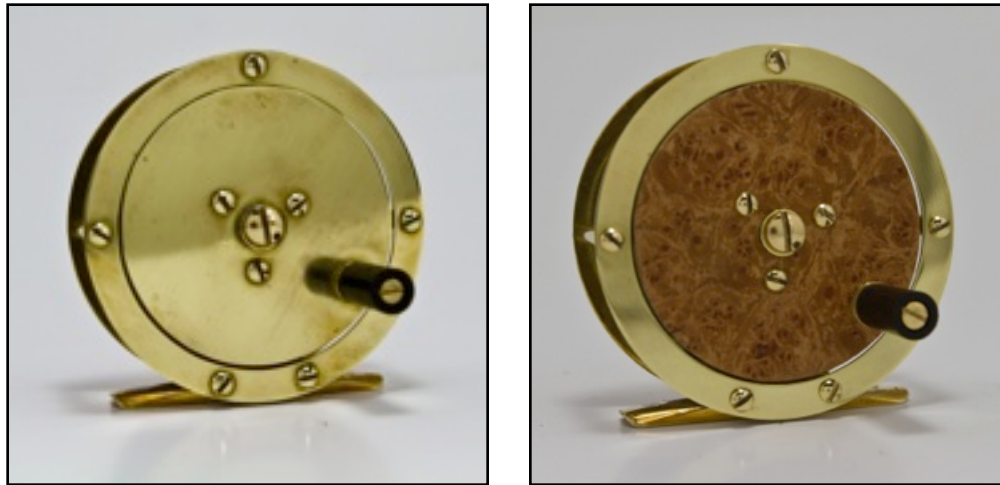


Figure 1: Before and After Photos

Wood veneer is thinly sliced sheets of wood often made from highly figured and attractive wood burls with wild grains. It is relatively inexpensive and can be purchased at local woodworking stores or online (see Veneer Sources below). **Figure 2** shows a 4" square of black walnut burl with a beautiful grain pattern that we'll use to veneer a spool plate. Wood veneer comes unbacked or paper-backed. For use on fly reel side plates, unbacked veneer is best since it is thinner and the paper can cause problems by swelling when wet. I think the greatest impact comes with highly figured veneers with a tight grain pattern, but this is an individual choice and part of the enjoyment of building your own reels!

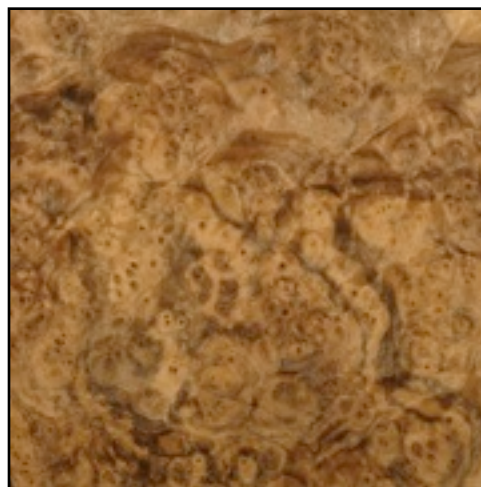


Figure 2: Black Walnut Burl

Tools and Materials

- a 3" x 3" piece of thin wood veneer (in general, the thinner the better)
- contact cement (I use Weldwood™, not much is needed)
- small disposable brush (a battery brush is perfect for this)
- an X-acto™ knife with several new blades
- a 4" x 4" sheet of 400 grit sandpaper
- one 4" x 4" sheet of plastic wrap
- an old credit card or other thin plastic straight-edged tool
- Tung Oil (satin or gloss)

Getting Ready

With highly figured burl wood veneer “less is more”. It is only necessary to veneer the outside face of the front spool plate to completely change the look of your reel. Although you could veneer both sides of the front spool plate and the inside facing surface of the back spool plate, it isn’t really necessary.

Before starting, you should completely assemble your reel and make sure it is tuned and functioning properly. Once the reel is finished, applying the veneer is easy. You do not have to polish the outside face of the front side plate (the one with the handle) since it will be covered with veneer. One nice feature of this technique is that you can apply veneer to a reel at anytime and, if you don’t like it, you can remove it without damaging the reel! You could even change the veneer every year and have a “new” reel to show off to your friends.

Now that your reel is assembled, you need to disassemble it to take the front spool plate off. Before you do, mark the back side with a pencil or marker on both the spool plate and the Delrin™ hub to make sure you can reassemble them in the same orientation. Now, on to the veneering.

Veneering

Lightly sand the outside surface of the spool plate with the 400 grit sandpaper. This roughens up the surface to help the contact cement adhere. I like to cross sand - sand in one direction first and then sand perpendicular to create a cross hatch pattern. Once the sanding is complete, wash the plate in warm sudsy water, rinse well and let dry. If you have rubbing alcohol, you can use that to clean the spool plate instead. The idea is to get the sanding grit and greasy finger prints off. Once clean, do not touch the face of the plate.

While the spool plate is drying, you can prepare the veneer. Thin veneers are usually wavy and dimpled from the wild grain. Not to worry, it will flatten out when it gets glued to the brass disk. Pick the best face to show (one side will often be more attractive than the other) and cut a 2 1/2” square over the best grain. Rough up the back side with the 400 grit sandpaper. Dust off the sanding grit with a clean paper towel or rag. **Figure 3** shows the prepared spool plate and the veneer piece.

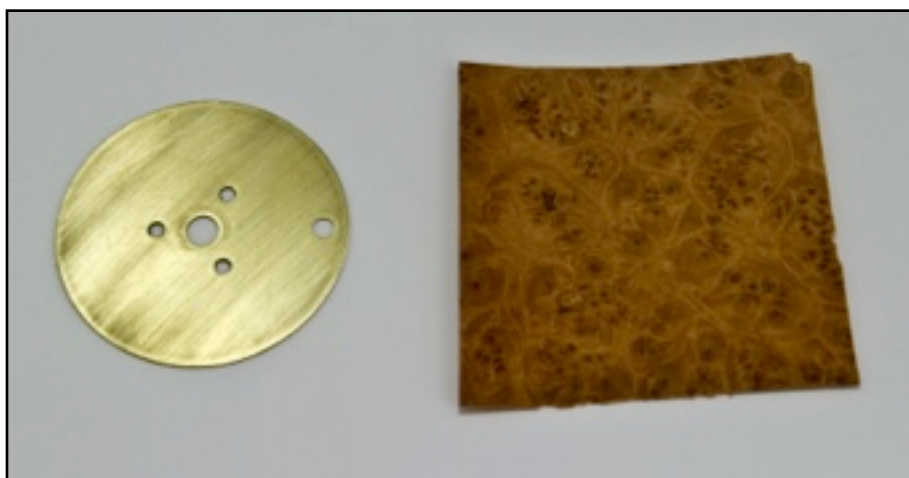


Figure 3: Prepared Spool Plate and Veneer

Gluing the veneer to the side plate is straight-forward. Make sure to follow the instructions on your adhesive. Most contact cements require coating both surfaces with the adhesive and allowing them to dry until tacky. Then, the parts are brought in

contact with each other and pressed together. I like to use a 1/2" battery brush to apply the contact cement to the parts. **Figure 4** shows a battery brush on a can of Weldwood contact cement. Make sure to apply it to the correct side of the spool plate, the side that does not have the countersunk handle hole. Allow the adhesive to become tacky and then carefully lower the veneer on to the side plate - lining it up as you do. **Figure 5** shows the parts coated just before assembly, a small sheet of plastic wrap helps prevent sticking to your work surface. With the parts adhered together, use a credit card (or you can use a veneer roller or small rolling pin) to smooth the veneer to press out any bubbles and make sure the parts are completely adhered together.



Figure 4: Weldwood Contact Cement and a Battery Brush

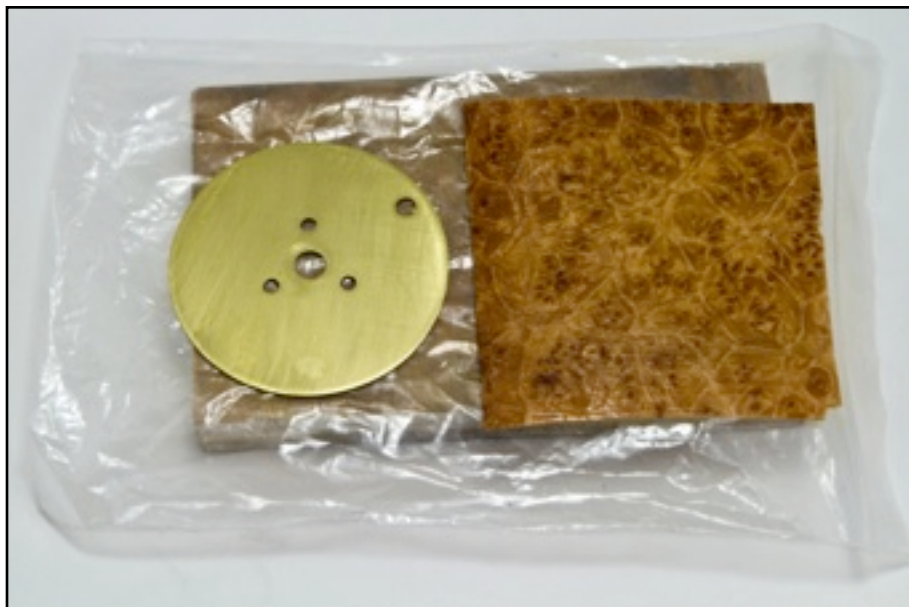


Figure 5: Parts Coated with Contact Cement

Once the veneer is attached, its ready to be trimmed and finished. Using a new blade, trim the veneer around the spool plate with an X-acto knife. Go slowly and use a sharp blade. Then carefully cut out the center 1/4" spool hole, the three small holes for the spool plate screws, and the hole for the handle spindle screw. You can simply use the point of the knife blade with a twisting motion. This works better than drilling the thin material. **Figure 6** shows the part with the holes cut out in the veneer.

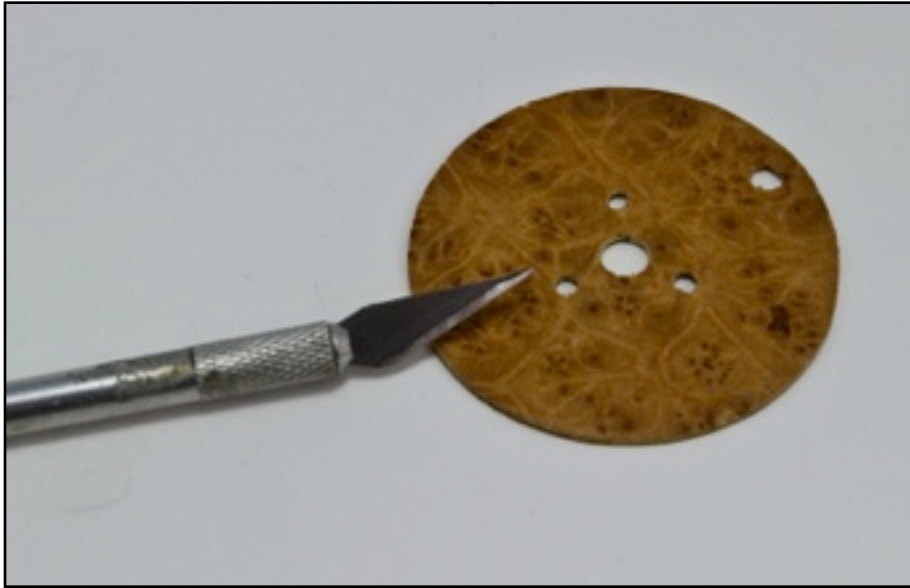
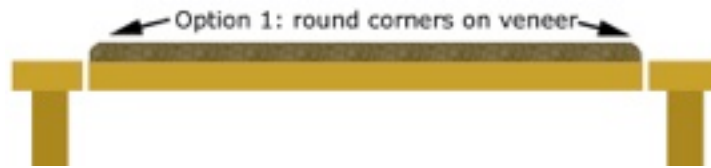


Figure 6: Holes Trimmed in Veneer

Now you must decide how you want the veneered spool plate to fit in the reel. The two options are shown below. In Option 1, the veneer sits above the face of the frame. This has the advantage of not requiring the Delrin spool to be shortened. I prefer this option since it adds more depth and interest to the reel but it does mean that your spindle needs to be made a little longer, a thin plastic washer slightly less than 1/4" diameter made from a milk bottle is perfect. In Option 2, the veneer is flush with the face of the reel. This will require shortening the Delrin hub the thickness of the veneer. This is easily done on a lathe but can be done with a smooth flat file if you are careful. The choice is yours. In Option 1, you slightly round over the edge of the veneer, in Option 2, you round over the back of the spool plate. Use 400 grit sandpaper folded into thirds for this.



Option 1: Veneer raised above front face



Option 2: Veneer flush with frame

Carefully sand the face of the veneer. Use a light touch, you don't want to sand through the thin veneer. Now you are ready to apply the finish.

Finishing

I like to finish with satin Tung oil because I prefer the matte look over glossy. You can also use varnish (use a good grade marine spar varnish) or any of the acrylic or epoxy finishes. I apply a puddle of oil and sand using the 400 grit to work up a slurry. This fills in the grain of the burl. The oil also gives a nice warm glow to the wood. **Figure 7** shows the veneer after three coats of oil applied with light sanding. Make sure to finish the edge of the veneer too.

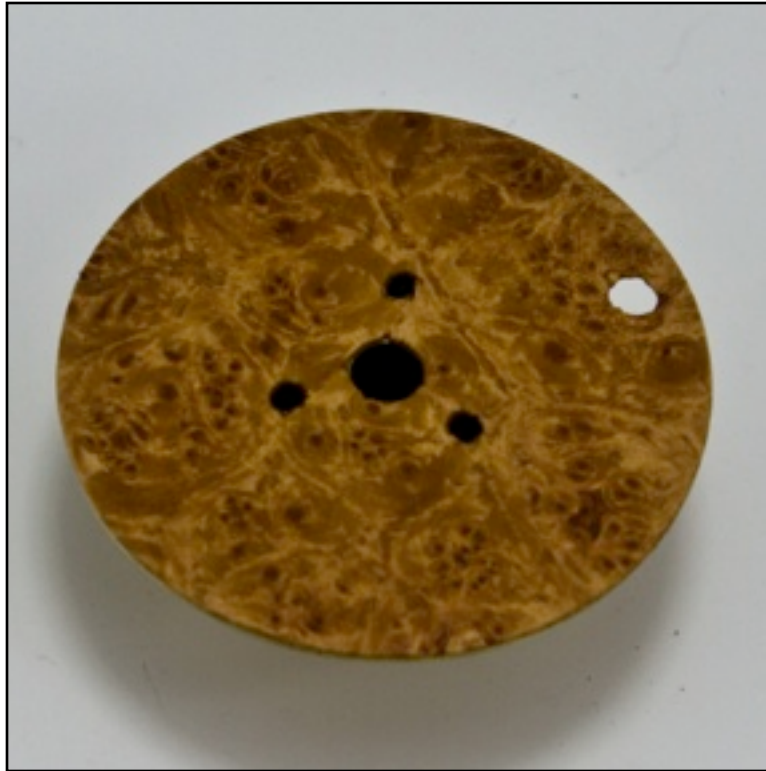


Figure 7: Three Coats of Tung Oil Applied

When you are satisfied with your finish, allow the plate to dry overnight and then buff with 000 steel wool (or synthetic pad), and apply a good wax. I like Renaissance microcrystalline wax (**Figure 8**) as the final finish.



Figure 8: Renaissance Microcrystalline Wax

After a little brass polishing and reassembly, the reel takes on a completely new look (Figure 9). Except for the finish drying time, this took less than 30 minutes to complete.



Figure 9: Finished Reel

Veneer Sources

- www.certainlywood.com
 - www.rockler.com
 - www.woodcraft.com
 - www.veneersupplies.com
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Reelflections

The Meisselbach Patented Featherlight Reel

I like simplicity. Humans, by their nature, tend to want to make things more complicated than they really need to be. Albert Einstein said “*Make everything as simple as possible, but not simpler.*” (I like quotes too!). In the case of fishing reels, the Meisselbach brothers, August and William of New Jersey, were practicing that philosophy while Einstein was still a boy.

This month’s *Reelflections* takes a look at one the Meisselbach brother’s early patented reels - the Featherlight. US Patent #553,069 was granted to August F. Meisselbach and William Meisselbach on Jan. 14, 1896. The patent drawings are shown in **Figure 1**. The Meisselbach brothers were savvy businessmen and innovators, you can learn more in Phil White’s well researched *Meisselbach and Meisselbach-Catucci Fishing Reels*¹.

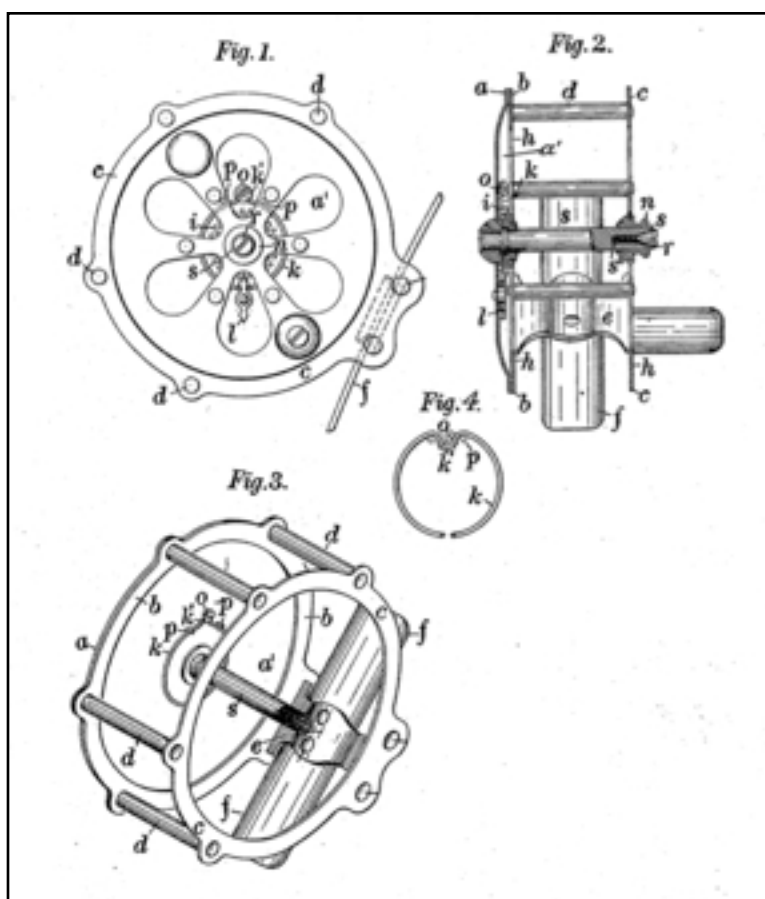


Figure 1: US Patent #553,069 Drawings

The claims made in patent #553,069 are:

1. In a fishing reel, the combination, with the reel frame formed with a suitable cheek plate carrying an axial reel spindle, a spool mounted upon the said spindle and provided with a click wheel adjacent to the said cheek plate, a click pivoted upon the inner face of the said cheek plate and adapted to engage the said click wheel, a click spring encircling the said click wheel and formed with opposed ends to bear upon opposite sides of the said click and having a crook intermediate to its ends,

¹ Phil White, *Meisselbach and Meisselbach-Catucci Fishing Reels* (Centennial Publications, 1995)

straight pins projected outwardly from the cheek plate at opposite sides of the crook but upon one side only of the spring, and a screw applied to the cheek plate within the said crook to retain the said spring in contact with said pins and secure the same removably upon the cheek plate, as and for the purpose set forth.

2. In a fishing reel, the combination, with the reel frame formed with a suitable cheek plate carrying an axial reel spindle, a spool mounted upon the said spindle and provided with a click wheel adjacent to the said cheek plate, a reversible double headed click pivoted upon the inner face of the said cheek plate and adapted to engage the said click wheel, a click spring encircling the said click wheel and formed with opposed ends to bear upon opposite sides of the said click and having a crook intermediate to its ends, straight pins projected outwardly from the cheek plate at opposite sides of the crook but upon one side only of the spring, and a screw applied to the cheek plate within the said crook to retain the said spring in contact with, said pins and secure the same removably upon the cheek plate, as and for the purpose set forth.

Claim one describes the click spring, which is bent and retained by a screw and two pins. It is rather interesting as we'll see in the internal photos of the reel. Claim two describes a reversible click pawl, it can be rotated 180° if/when one end wears down, doubling the life of the reel. The brothers contend that this arrangement of spring and double-ended pawl is simpler and doubles the life of the reel.

Let's take a look at a Meisselbach Featherweight reel that is stamped with this patent "PAT. JAN. 14 '96". **Figure 1** shows the front face, **Figure 2** the back face, and **Figure 3** the bottom of the foot.



Figure 1: Front Side of Meisselbach Featherlight



Figure 2: Back Side Showing Click Slide Button



Figure 3: Bottom of Riveted Foot showing 280 size

The reel features a simple but attractive stamped raised pillar frame and spool side plates. Decorative porting features the six petal design as that shown in the patent but adds a little extra cutout between the petals. This is a nice feature that both lightens the reel and looks attractive. The foot is a simple stamping riveted to a fitting cross brace, simple and quite strong. Finally, the sliding check button on the back allows the angler to disable the click. Simple, functional, and very cost effective to manufacture in high quantities.

The spool is held in place with a simple retaining screw. Removing the spool reveals the patented check mechanism shown in **Figure 4**.



Figure 4: Internals of the Featherlight

The click wheel is pressed onto the tube that comprises the hub. It is made of steel. The interesting and patented spring design and pawl are shown in the close-up in **Figure 5**. The spring is wishbone shaped as per the patent description. It is attached to the back frame plate with a single screw and is retained by two small pins. This is the simple arrangement described in the patent. In addition to being simple to manufacture, it allows the spring to be unclipped from one of the springs without tools. The pawl can then be rotated 180° to present the other end, which is properly shaped. Although inexpensive to manufacture and purchase, the reel was designed to give long service and value - trademarks of the Meisselbach brothers.

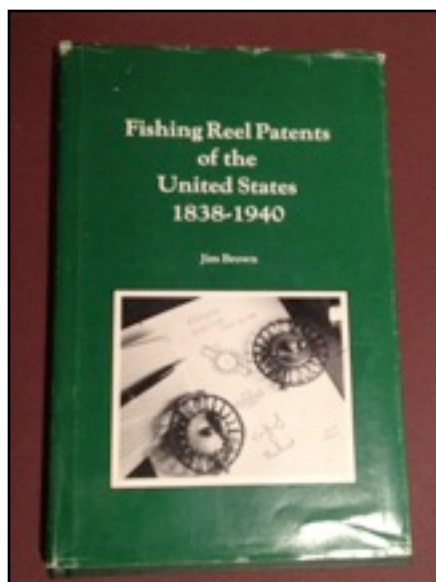


Figure 5: Close-up View of Spring and Double-ended Pawl

Book Report

Fishing Reel Patents of the United States 1838-1940

This month I'd like to share a great reel reference book, *Fishing Reel Patents of the United States 1838-1940*² by Jim Brown. The book has been out of print for a while but copies do appear on the used book market (check Abe Books). I keep my copy on my desk ready to open in an instant. The book includes citations for over 800 US patents. When this book was published, the World Wide Web was in its infancy. The only way to get patent text was to order it from the patent office. Today, you can get the full text and drawings for most US issued patents at <http://www.google.com/patents> so researching is a lot easier.



Last Cast

Earlier this month I discovered that a fine reel maker and gentleman, Robert Baird, passed away rather unexpectedly at his workshop in Utah. Just several days before his untimely death, Bob emailed me an invitation to become a fan of his new Facebook page. Bob used the name "Diamond Baird" for his work and his logo featured a "B" inside a diamond. His reels are works of art, some even solid gold!

Years ago Bob worked with an old rubber chemist to recreate hard rubber (aka ebonite) for use in his work. He used a broken side plate from a Julius Vom Hofe to get a chemical analysis. Not wanting to sacrifice an otherwise nice reel, Bob worked his magic on the skeleton by adding his trademark etched nickel plate and a small jewel in the oil cap. I am fortunate to own this reel. I did not have time to photograph it this month but I will in next month's Newsletter, it is a beauty that Vom Hofe would be proud of.

Rest in peace Robert.

² Jim Brown, *Fishing Reel Patents of the United States 1838-1940* (Trico Press 1985)